

REMARKS

Claims 1-22 are pending in this application. Claims 1, 2, 5, 6, 9, 10 and 13-16 have been amended for the sole purpose of correcting grammatical errors in the wording to provide proper antecedent basis. No new matter is introduced.

Claim Formalities

Claims 1, 2, 5, 6, 9, 10, and 13-16 are amended to address errors in grammar noted by the Examiner. In particular, the amended claims now have proper antecedent basis for several terms. The amendments replace “such capability data” with “the capability data” and replace “such handoff” with “the handoff.” No new matter is introduced by these amendments and they do not affect the scope of the claims.

Claim Rejections - 35 U.S.C. 102

The Examiner rejected claims 1-6, 8-10, 12-15 and 19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,591,116 to Laurila. We disagree.

The present invention provides a system and method for selecting the operating mode of a multi-mode handset by providing data indicative of the operating mode capability of a wireless subsystem or particular base station(s) to a wireless handset so that the handset can be switched or operated in a mode that corresponds to those preferably enhanced capabilities. In particular, a database is provided that contains data indicative of the operating mode capability of the wireless subsystem or base station(s) within the subsystem. A handset operating in a first mode transmits query messages to the database to retrieve the capability data of the wireless subsystem or particular base station(s). The handset is then switched or operated in a second mode if the retrieved capability data indicates that the subsystem or base station is capable of operating in the second mode. Such features are recited in independent claims 1, 2, 5, 6, 9, 10, 12-15 and 19.

For example, in Fig. 2, a dual mode handset 12 operating in a first operating mode (*e.g.*, low speed data) may be switched, or handed off, from the then-connected first mode base station 17 in the wireless subsystem 16 to a first mode base station 21 in a second wireless subsystem 22. The subsystem 22 may be enhanced with an additional base station 24 that can

support a second mode (*e.g.*, high speed data). However, the first mode base station 21 typically operates independent of the second mode base station 24 at the same location and therefore is not aware of that the enhanced capability is available.

To address this problem, a capabilities server 31 can be provided that contains a database 32 (Fig. 3) populated with capability data indicative of the enhanced capabilities present at the wireless subsystems 16, 22 (*e.g.*, a cell site). Upon completion of the handoff, a query message is transmitted from the handset to the database 32 to retrieve the capability data of the wireless subsystem 22. If the capability data retrieved from the database 32 indicates that the new wireless subsystem 22 includes enhanced facilities (*e.g.*, base station 24 operable in a second high speed mode), the handset 12 disconnects from the base station 21 and connects to base station 24 in a conventional manner. Thus, by providing a database that can be queried by a handset for the capabilities within a particular subsystem or base station, a handset is capable of being switched or operated at a preferably enhanced mode of operation supported in the subsystem even after an initial handoff.

In Laurila, a mobile device is disclosed that includes a data storage module 18, referred to as a Subscriber Identity Module (SIM)/USIM or UICC. This data storage module stores information for specifying the operational capabilities of the mobile device itself. The mobile device uses the SIM to inform a visited network as to the capabilities of the applications of the mobile device. This then allows the network, as opposed to the mobile device, to select and use the latest applications and features supported by the mobile device. In particular, the mobile device includes a controller that is responsive to a request from the visited network for information concerning the mobile device's capabilities. (Laurila, col. 2, ln. 58 - col. 3, ln. 26).

Regarding independent claims 1, 2, 5, 6, 9, 10, 12-15 and 19, the Examiner is of the opinion that a database containing data indicative of the operating mode capability of the wireless subsystem or particular base station is inherent to the SIM/USIM data storage module. This is not correct. Rather, the SIM/USIM module only contains information regarding the operational capabilities of the mobile device itself. (Laurila, col. 3 lns. 19-22). A SIM/USIM does not

contain information indicative of the operating mode capability of the wireless subsystem or base station(s) within the subsystem to which the mobile device is connected.

In other words, the handset in the Laurila system is not capable of handling the situation as shown in Applicants' Fig. 2, where a second mode may have enhanced capabilities that are not known a priori to the handset.

Claim 1 is therefore patentable over Laurila for this reason.

Furthermore, with respect to at least claims 9, 10, and 19, a feature of the present invention is that after an initial handoff to a base station in a wireless subsystem or cell site, the handset can transmit query messages to the database to determine the capability data of other base stations within the wireless subsystem. If the retrieved capability data indicates that the subsystem contains another base station that supports a preferably enhanced mode of the handset, the handset can be switched into that mode and then can establish a wireless communication with that enhanced base station. Laurila does not teach or suggest such a feature, and a handset SIM/USIM is not capable of supporting it.

For at least these reasons, Laurila does not teach or suggest associating a database with a data communication system containing data indicative of the operating mode capability of the wireless subsystem or particular base station(s) within the wireless subsystem, transmitting query messages on the system from the handset to the database to retrieve such capability data, and switching or operating the handset in a mode indicated by the retrieved capability data.

Thus, independent claims 1, 2, 5, 6, 9, 10, 12-15 and 19 are novel and non-obvious over the prior art of record. Further, by virtue of at least their dependency on the independent claims, dependent claims 3, 4 and 8 are also patentable.

*Claim Rejections - 35 U.S.C. 103*Claims 7, 11, and 20

The Examiner rejected claims 7, 11 and 20 under 35 U.S.C. §103(a) as being unpatentable over Laurila in view of U.S. Patent 6,683,853 to Kannas. Claims 7, 11 and 20 are directed to an additional feature in which the database is designated as a second Internet destination port for the handset. With respect to Laurila, the foregoing arguments still apply, and the Examiner actually acknowledged that Laurila does not teach this additional feature.

But Kannas also does not correct or supply the teachings missing from Laurila. Kannas merely discloses that an Internet server can communicate with a wireless subscriber unit over a radio and core (wired) networks. (See Kannas, col. 3, lines 31-56). Thus, Kannas does not teach or suggest a database containing data indicative of the operating mode capability of the wireless subsystem or particular base station(s) within the wireless subsystem, transmitting query messages on the system from the handset to the database to retrieve such capability data, and switching or operating the handset in a mode indicated by the retrieved capability data. Moreover, Kannas does not teach or suggest the such a database can be designated as a second Internet port of a handset that can be queried for capability data of the wireless subsystem or particular base station(s) within the wireless subsystem.

For at least these reasons, claims 7, 11 and 20 are also patentable.

Claims 16-18 and 21-22

The Examiner rejected claims 16-18 and 21-22 under 35 U.S.C. §103(a) as being unpatentable over Laurila in view of U.S. Patent 6,157,845 to Henry et al. With respect to independent claims 16 and 21, the Examiner acknowledges that Laurila fails to disclose a second server associated with the system and a data base incorporated in the second server that contains data indicative of the operating mode capability of a particular wireless subsystem or base

station, respectively. However, the Examiner is of the opinion that Henry discloses these features. We disagree.

With respect to Laurila, the foregoing arguments still apply, and Henry does not correct these deficiencies of Laurila. In the passage cited by the Examiner, Henry discloses a Cellular Digital Packet Data (CDPD) network for providing packet data services utilizing available radio channels. To maintain and administer the CDPD network, Henry acknowledges that a number of servers are needed to permit interoperability among service providers, namely, an accounting server, a network management system, a message transfer server and an authentication server. (See Henry, col. 9, lns. 51-65).

Thus, contrary to the Examiner's opinion, Henry does not teach or suggest a database containing data indicative of the operating mode capability of the wireless subsystem or particular base station(s) within the wireless subsystem, transmitting query messages on the system from the handset to the database to retrieve such capability data, and switching or operating the handset in a mode indicated by the retrieved capability data.

Moreover, Henry does not teach or suggest a second server associated with the system and a database incorporated in the second server that contains data indicative of the operating mode capability of a particular wireless subsystem or base station(s).

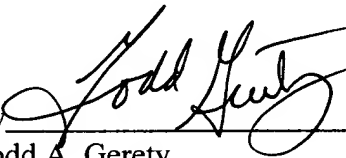
For at least these reasons, independent claims 16 and 21 are novel and non-obvious over the prior art of record. Further, by virtue of at least their dependency on the independent claims, dependent claims 17-18 and 22 are also patentable.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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